

WHAT IS CLAIMED IS:

- Sub
a
1. A pressure sensitive adhesive composition comprising a copolymer comprising
(a) at least one A monomer selected from the group consisting of an alkyl acrylate containing 4 to 12 carbon atoms in the alkyl group and an alkyl methacrylate containing 4 to 12 carbon atoms in the alkyl group; and
(b) at least one pyrrolidone monomer selected from the group consisting of pyrrolidonoethyl acrylate and pyrrolidonoethyl methacrylate.
 2. The composition of claim 1 wherein the A monomer is selected from the group consisting of isooctyl acrylate, 2-ethylhexyl acrylate, butyl acrylate, and cyclohexyl acrylate.
 3. The composition of claim 1 wherein the A monomer is isooctyl acrylate.
 4. The composition of claim 1 further comprising a B monomer that is copolymerizable with the A and pyrrolidone monomers.
 5. The composition of claim 4 wherein the B monomer comprises a functional group selected from the group consisting of carboxylic acid, carboxylic acid ester, sulfonamide, urea, carbamate, carboxamide, hydroxy, amine, oxy, oxo, and cyano.
 6. The composition of claim 1 wherein the pyrrolidone monomer is pyrrolidonoethyl acrylate.
 7. The composition of claim 1 wherein the copolymer further comprises a macromonomer.
 8. The composition of claim 7 wherein the macromonomer is a functionally terminated polymethylmethacrylate.
 9. The composition of claim 7 further comprising a drug in an amount such that the composition delivers a therapeutically effective amount for the indication being treated.
 10. The composition of claim 9 wherein the copolymer contains from about 1% to about 6% of macromonomer by weight.
 11. The composition of claim 10 wherein the pyrrolidone monomer is pyrrolidonoethyl acrylate.
 12. The composition of claim 11 wherein the copolymer contains from about 10% to about 45% of pyrrolidonoethyl acrylate by weight.

13. The composition of claim 12 wherein the copolymer further comprises vinyl acetate.
14. The composition of claim 12 further comprising a softener wherein the concentration of softener is from about 10% to about 40% based on the total weight of the composition.
15. The composition of claim 1 further comprising a drug in an amount such that the composition delivers a therapeutically effective amount for the indication being treated.
16. The composition of claim 1 further comprising a softener.
17. The composition of claim 16 wherein the softener is selected from the group consisting of a C₈-C₃₆ fatty acid; a C₈-C₃₆ fatty alcohol; a lower alkyl ester of a C₈-C₃₆ fatty acid; a di(lower) alkyl ester of a C₆-C₈ diacid; a monoglyceride of a C₈-C₃₆ fatty acid; tetraglycol; tetraethylene glycol; a C₆-C₃₆ alkyl pyrrolidone carboxylate; a polyethylene glycol; propylene glycol; 2-(2-ethoxyethoxy)ethanol; diethylene glycol monomethyl ether; N,N-dimethyldodecylamine N-oxide; and combinations of any two or more of the foregoing.
18. The composition of claim 16 wherein the concentration of softener is from about 10% to about 40% based on the total weight of the composition.
19. The composition of claim 1 further comprising an anti-microbial agent.
20. The composition of claim 19 wherein the anti-microbial agent is selected from the group consisting of chlorhexidine, a chlorhexidine salt, and mixtures thereof.
21. The composition of claim 19 wherein the anti-microbial agent is selected from the group consisting of iodine, iodine complexes with sodium or potassium iodide, and mixtures thereof.
22. The composition of claim 19 wherein the copolymer contains from about 5% to about 15% of pyrrolidonoethyl acrylate by weight.
23. The composition of claim 22 wherein the anti-microbial agent is selected from the group consisting of chlorhexidine, a chlorhexidine salt, and mixtures thereof.

24. The composition of claim 22 wherein the anti-microbial agent is selected from the group consisting of iodine, iodine complexes with sodium or potassium iodide, and mixtures thereof.
25. A transdermal delivery device comprising a backing and a composition according to claim 9, the composition being coated on at least a portion of a surface of the backing.
26. A transdermal drug delivery device comprising a backing and a composition according to claim 14, the composition being coated on at least a portion of a surface of the backing.
27. A transdermal drug delivery device comprising a backing and a composition according to claim 15, the composition being coated on at least a portion of a surface of the backing.
28. A method for transdermal delivery of a drug comprising the steps of
- (A) a step of providing a composition comprising
 - (i) a copolymer comprising
 - (a) at least one A monomer selected from the group consisting of an alkyl acrylate containing 4 to 12 carbon atoms in the alkyl group and an alkyl methacrylate containing 4 to 12 carbon atoms in the alkyl group; and
 - (b) at least one pyrrolidone monomer selected from the group consisting of pyrrolidonoethyl acrylate and pyrrolidonoethyl methacrylate; and
 - (ii) a drug in an amount such that the composition delivers a therapeutically effective amount for the indication being treated; and
 - (B) a step of applying the composition to an external part of the human body for a period sufficient to achieve the desired therapeutic result.
29. A pressure sensitive tape comprising a backing and a composition according to claim 1, the composition being coated on at least a portion of a surface of the backing.
30. A pressure sensitive adhesive copolymer comprising
- (a) at least one A monomer selected from the group consisting of an alkyl acrylate containing 4 to 12 carbon atoms in the alkyl group and an alkyl

methacrylate containing 4 to 12 carbon atoms in the alkyl group; and
(b) at least one pyrrolidone monomer selected from the group consisting of
pyrrolidonoethyl acrylate and pyrrolidonoethyl methacrylate.

09501319-070904